

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A method for providing at least one energy management program to a utility of a commodity, the energy management program aimed at managing demand for the commodity, the utility delivering the commodity to a plurality of at least one customer sites, each the customer site having a plurality of devices which use the commodity and a node associated with each device, including the steps of:

defining the energy management program at the utility having a subset of the plurality of devices for which usage of the commodity may be managed by activating the energy management program, wherein the subset of devices includes all devices of a similar type at the plurality of customer sites;

delivering the commodity to the subset of devices;

measuring the instantaneous rate at the device at which the commodity is being delivered to each device of the subset of devices;

sending the instantaneous rate for each device within the subset to the utility in real time;

determining at the utility, in real time, a capacity associated with the delivery of the commodity to the subset of devices which may be available for management by activating the energy management program;

selectively activating the energy management program at the utility to manage the usage of the commodity by the subset of devices; and

measuring at least one of a rate and a change in the rate at which the commodity is being delivered to the subset of devices after activation of the energy management program such that the utility can verify, in real time, management of the commodity usage following activation of the program.

2. (Cancelled)

3. (Currently amended) A method, as set forth in claim 1, including the step of determining an actual capacity of the commodity saved by activation ~~activating~~ of the energy management program.

4. (Currently amended) A method, as set forth in claim 3, including the step of providing at least one of an alternate rate and a billing adjustment rebate to each at ~~least one~~ customer as a function of the actual capacity managed at the related customer site by the energy management program.

5. (Previously presented) A method, as set forth in claim 4, wherein the at least one of an alternative rate and a billing adjustment is also a function of historical usage information.

6. (Previously presented) A method, as set forth in claim 1, including the step of verifying management of the devices within the subset of the devices.

7. (Cancelled)

8. (Currently amended) A method, as set forth in claim 1, including the step of allowing a customer to subscribe to the energy management program.

9. (Currently amended) A method, as set forth in claim 1, wherein the energy management program is mandatory.

10. (Currently amended) A method, as set forth in claim 1, wherein ~~the utility delivers the commodity to a plurality of customer sites, each customer site having a plurality of devices and~~ the step of defining at least one energy management program includes the step of defining a plurality of programs, each energy management program having a respective subset of the plurality of devices.

11. (Currently amended) A method, as set forth in claim 10, wherein the commodity is delivered to the plurality of customer sites through a distribution network, including the step of determining, in real time, a capacity available across the distribution network associated with the delivery of the commodity which may be managed by activating one or more of the plurality of energy management programs.

12. (Original) A method, as set forth in claim 11, including the step of providing a graphical representation of the capacity available across the distribution network.

13. (Original) A method, as set forth in claim 12, wherein the graphical representation includes at least one of a meter, a bar chart, a line graph, a geophysical display, and a numeric display.

14. (Currently amended) A method, as set forth in claim 11, wherein the distribution network includes a plurality of substations, the method including the step of determining, in real time, a capacity available on each substation, associated with the delivery of the commodity which may be managed by activating the plurality of energy management programs.

15. (Currently amended) A method, as set forth in claim 11, wherein the distribution network includes at least one transmission substation and at least one distribution substation associated with each transmission substation, the method including the step of determining, in real time, a capacity available on each substation, associated with the delivery of the commodity which may be managed by activating the plurality of energy management programs.

16. (Currently amended) A method, as set forth in claim 15, wherein the distribution network includes at least one circuit associated with each distribution substation, the method including the step of determining in real time, a capacity available on each circuit, associated with the delivery of the commodity which may be managed by activating the plurality of energy management programs.

17. (Original) A method, as set forth in claim 16, including the step of displaying a collapsible/expandable tree of the distribution network containing the at least one transmission substation, the at least one distribution substation associated with each transmission substation, and the at least one circuit associated with each distribution substation, wherein selection of one of the substations and circuit in the distribution network displays associated capacity information.

18. (Currently amended) A method, as set forth in claim 17, wherein the collapsible/expandable tree is displayed in a utility interface, the method including the step of displaying a list of the energy management programs available in response to selection of a portion of the tree, the available energy management programs corresponding to those available energy management programs which correspond to a portion of the distribution network.

19. (Original) A method, as set forth in claim 1, wherein the commodity is electrical power.

20. (Original) A method, as set forth in claim 1, wherein the commodity is water.

21. (Original) A method, as set forth in claim 1, wherein the commodity is one of natural gas and steam.

22. (Currently amended) A method, as set forth in claim 1, wherein the step of defining at least one energy management program includes the step of defining a plurality of energy management programs, each energy management program having a respective subset of the devices, the method including the step of providing a search function for identifying at least one energy management program which matches a set of conditions.

23. (Original) A method, as set forth in claim 22, wherein the set of conditions includes an available capacity.

24. (Original) A method, as set forth in claim 1, including the step of providing a utility interface.

25. (Original) A method, as set forth in claim 24, wherein the utility interface is accessible through a web browser.

26. (Currently amended) A method, as set forth in claim 1, including the step of automatically activating the energy management program under a predetermined set of conditions.

27. (Original) A method, as set forth in claim 26, wherein the predetermined set of conditions includes at least one of a time of day and a day.

28. (Currently amended) A method, as set forth in claim 1, including the step of manually activating the energy management program as a function of an actual demand of the commodity.

29. (Currently amended) A method, as set forth in claim 1, wherein the energy management program at least one of shifts demand away from a first time period and eliminates the demand.

30. (Currently amended) A method, as set forth in claim 1, including the step of managing the subset of devices in response to activation of the energy management program.

31. (Original) A method, as set forth in claim 30, wherein the step of controlling the subset of devices includes the step of modifying usage of the commodity during a predetermined period of time.

32. (Original) A method, as set forth in claim 30, wherein at least one of the devices has an operating setpoint, and wherein the step of controlling the subset of devices includes the step of modifying the setpoint.

33. (Currently amended) A method, as set forth in claim 1, including the steps of receiving a supply request and allowing an operator to responsively activate the energy management program.

34. (Currently amended) A method, as set forth in claim 33, wherein the energy management program may be activated at least one of immediately and a future point in time.

35. (Currently amended) A method, as set forth in claim 33, wherein the supply request includes a request duration, wherein the energy management program may be activated as a function of the request duration.

36. (Cancelled)

37. (Currently amended) A method for providing at least one energy management program to a utility of a commodity, the energy management program aimed at managing demand for the commodity, the utility delivering the commodity to a plurality of at least one customer sites, each the customer site having a plurality of devices which use the commodity and a node associated with each device, including the steps of:

defining the energy management program at the utility having a subset of the plurality of devices for which usage of the commodity may be managed by activating the energy management program, wherein the subset of devices includes all devices of a similar type at the plurality of customer sites;

delivering the commodity to the subset of devices;

measuring the instantaneous rate at the device at which the commodity is being delivered to each device of the subset of the devices;

sending the instantaneous rate for each device within the subset to the utility;

determining at the utility, in real time, a capacity associated with the delivery of the commodity which may be managed by activating the program;

selectively activating the energy management program at the utility to manage the usage of the commodity by the subset of devices;

determining an actual rate of consumption of the commodity at each of the devices following activation of the energy management program;

determining, in real time, an actual capacity of the commodity managed following activation of the energy management program; and

providing at least one of an alternative rate and a billing adjustment to each ~~at least one~~ customer as a function of the actual capacity managed at the related customer site by activation of the energy management program.

38. (Currently amended) A method for providing at least one energy management program to a utility of a commodity, the energy management program aimed at managing demand for the commodity, the utility delivering the commodity to

a plurality of at least one customer sites, each the customer site having a plurality of devices which use the commodity and a node associated with each device, including the steps of:

defining the energy management program at the utility having a subset of the plurality of devices for which usage of the commodity may be managed by activating the energy management program, wherein the subset of devices includes all devices of a similar type at the plurality of customer sites;

delivering the commodity to the subset of devices;

measuring the instantaneous rate at each device at which the commodity is being delivered to each device of the subset of the devices;

sending the instantaneous rate for each device within the subset to the utility;

determining at the utility, in real time, a capacity associated with the delivery of the commodity which may be managed by activating the energy management program;

selectively activating the energy management program at the utility to manage the usage of the commodity by the subset of devices;

determining an actual consumption of the commodity at each of the devices of the subset following activation of the energy management program; and

verifying management of the devices within the subset of the devices based upon the actual consumption of the commodity by each of the devices following activation of the energy management program.

Claims 39 – 41 (Cancelled)

42. (Currently amended) A system for providing at least one energy management program to a utility of a commodity, the energy management program aimed at managing demand for the commodity, the utility delivering the commodity to a plurality of at least one customer sites, each the customer site having a plurality of devices which use the commodity, comprising:

a utility interface, operable by a user at the utility, for defining the energy management program having a subset of the plurality of devices for which usage of the

commodity may be limited by activating the energy management program, wherein the subset of devices includes all devices of a similar type at the plurality of customer sites;

a distribution network for delivering the commodity to the subset of devices;

a node, coupled to each device, for measuring the instantaneous rate at which the commodity is being delivered to each device of the subset of the devices; and,

a control system coupled to the utility interface, the distribution network, and each node, for controlling delivery of the commodity and determining, in real time, a capacity associated with the delivery of the commodity which may be available by activating the energy management program as a function of the measured instantaneous rate.

43. (Currently amended) A system, as set forth in claim 42, the control system being adapted to activate the energy management program and the nodes adapted to subsequently measure the rate at which the commodity is being delivered to the subset of the devices.

44. (Currently amended) A system, as set forth in claim 43, the control system for determining at least one of an actual rate of consumption of the commodity and a change in a rate of consumption induced by activating of the energy management program.

45. (Currently amended) A system, as set forth in claim 44, wherein the control system determines at least one of an alternative rate and a billing adjustment to at least one customer as a function of the actual capacity managed at the related customer site by the energy management program.

46. (Original) A system, as set forth in claim 45, wherein the at least one of an alternative rate and a billing adjustment is also a function of historical usage information.

47. (Original) A system, as set forth in claim 43, wherein the control system verifies management of the devices within the subset of the devices.

48. (Currently amended) A system, as set forth in claim 42, wherein the ~~utility delivers the commodity to a plurality of customer sites, each customer site having a plurality of devices and the utility interface allows the user to define a~~ plurality of energy management programs, each energy management program having a respective subset of the devices.

49. (Currently amended) A system, as set forth in claim 48, wherein the commodity is delivered to the plurality of customer sites through a distribution network, wherein the control system determines, in real time, a capacity available across the distribution network associated with the delivery of the commodity which may be managed by activating the plurality of energy management programs.

50. (Original) A system, as set forth in claim 49, wherein the utility interface includes a graphical representation of the capacity available across the distribution network.

51. (Previously presented) A system, as set forth in claim 50, wherein the graphical representation includes at least one of a meter, a bar chart, a line graph, a geophysical map, and a numerical display.

52. (Currently amended) A system, as set forth in claim 49, wherein the distribution network includes a plurality of substations, the control system being adapted to determine in real time, a capacity available on each substation, associated with the delivery of the commodity which may be managed by activating the plurality of energy management programs.

53. (Currently amended) A system, as set forth in claim 49, wherein the distribution network includes at least one transmission substation and at least one distribution substation associated with each transmission substation, the control system being adapted to determine, in real time, a capacity available on each substation, associated with the delivery of the commodity which may be managed by activating the plurality of energy management programs.

54. (Currently amended) A system, as set forth in claim 53, wherein the distribution network includes at least one circuit associated with each distribution substation, the control system, being adapted to determine in real time, a capacity available on each circuit, associated with the delivery of the commodity which may be managed by activating the plurality of energy management programs.

55. (Currently amended) A system, as set forth in claim 54, wherein the utility interface ~~is being~~ adapted to display a collapsible/expandable tree of the distribution network containing the at least one transmission substation, the at least one distribution substation associated with each transmission substation, and the at least one circuit associated with each distribution substation, wherein selection of one of the substations and circuit in the distribution network displays associated capacity information related to capacity that can be managed by the energy management programs.

56. (Currently amended) A system, as set forth in claim 55, wherein the utility interface displays a list of the energy management programs available in response to selection a portion of the tree, the available energy management programs corresponding to those available energy management programs which correspond to a portion of the distribution network.

57. (Original) A system, as set forth in claim 42, wherein the commodity is electrical power.

58. (Original) A system, as set forth in claim 42, wherein the commodity is water.

59. (Original) A system, as set forth in claim 42, wherein the commodity is one of gas and steam.

60. (Currently amended) A system, as set forth in claim 42, wherein the control system defines ~~at least one program includes the step of defining a plurality of~~ energy management programs, each energy management program having a respective

subset of the devices, and provides a search function for identifying at least one energy management program which matches a set of predetermined conditions.

61. (Currently amended) A system, as set forth in claim 60, wherein the set of predetermined conditions includes an available capacity that can be managed by the energy management programs.

62. (Original) A system, as set forth in claim 42, wherein the utility interface is accessible through a web browser.

63. (Currently amended) A system, as set forth in claim 42, wherein the energy management programs shifts demand away and eliminates demand from a first time period.

64. (Currently amended) A system, as set forth in claim 42, wherein the control system controls the subset of devices in response to activation of the energy management program.

65. (Original) A system, as set forth in claim 64, wherein the control system controls the subset of devices by at least one of limiting and increasing usage of the commodity during a predetermined period of time.

66. (Original) A system, as set forth in claim 65, wherein at least one of the devices has an operating setpoint, and wherein the control system controls the at least one of the devices by modifying the setpoint.

67. (Currently amended) A system, as set forth in claim 42, wherein ~~each device has an associated node, and the method includes the step of downloading to each node,~~ a program schedule is downloaded to each node containing scheduling information for the energy management program.

Claims 68 – 71 (Cancelled)